

## SPECIFICATION

**Amend the Title of the Invention beginning at page 2, line 1, as follows:**

~~CORDLESS TELEPHONE ACTIVE-CALL ENABLED INTERCOM~~ ACTIVE-CALL INTERCOM-ENABLED CORDLESS TELEPHONE

**Amend paragraph beginning at page 2, line 14, as follows:**

In accordance with one aspect of the present invention, the system has a base station and one cordless handset. An intercom communication initiated at either location will cause an active call at either location to be automatically placed on hold for the duration of the intercom communication after which the active call is ~~re-engaged~~ re-engaged.

**Amend paragraph beginning at page 3, line 5, as follows:**

~~FIG. 1 Fig. 1~~ is a block diagram of an ~~active-call intercom-enabled~~ active-call intercom-enabled cordless telephone with one handset;

**Amend paragraph beginning at page 3, line 7, as follows:**

~~FIG. 2a Fig. 2a~~ is a flowchart of the algorithm to initiate an intercom communication in the base station of an ~~active-call intercom-enabled~~ active-call intercom-enabled single handset cordless telephone;

**Amend paragraph beginning at page 3, line 10, as follows:**

~~FIG. 2b Fig. 2b~~ is a flowchart of the algorithm to end an intercom communication in the base station of an ~~active-call intercom-enabled~~ active-call intercom-enabled single handset cordless telephone;

**Amend paragraph beginning at page 3, line 13, as follows:**

~~FIG. 2c Fig. 2c~~ is a flowchart of the algorithm in the handset of an ~~active-call intercom-enabled~~ active-call intercom-enabled ~~single handset~~ single-handset cordless telephone;

**Amend paragraph beginning at page 3, line 15, as follows:**

~~FIG. 3 Fig. 3~~ is a block diagram of an ~~active-call intercom-enabled~~ active-call intercom-enabled multiple handset cordless telephone;

**Amend paragraph beginning at page 3, line 17, as follows:**

~~FIG. 4a Fig. 4a~~ is a flowchart of the algorithm in the base station of an ~~active-call intercom-enabled~~ active-call intercom-enabled ~~multiple handset~~ multiple-handset cordless telephone.

**Amend paragraph beginning at page 3, line 19, as follows:**

~~FIG. 4b Fig. 4b~~ is a flowchart of the algorithm in a handset of an ~~active-call intercom-enabled~~ active-call intercom-enabled ~~multiple handset~~ multiple-handset cordless telephone.

**Amend paragraph beginning at page 3, line 21, as follows:**

~~FIG. 5 Fig. 5~~ is a block diagram of a ~~active-call intercom-enabled~~ an active-call intercom-enabled ~~multiple handset~~ multiple-handset cordless telephone with separate intercoms for each handset;

**Amend paragraph beginning at page 4, line 1, as follows:**

~~FIG. 6a Fig. 6a~~ is a flowchart of the algorithm in the ~~Base~~ base station of a ~~active-call intercom-enabled~~ an active-call intercom-enabled ~~multiple handset~~ multiple-handset cordless telephone with separate intercoms for each handset;

**Amend paragraph beginning at page 4, line 4, as follows:**

~~FIG. 6b~~ Fig. 6b is a continuation of the flowchart of the algorithm in the ~~Base~~ base station of ~~active-call intercom-enabled~~ an active-call intercom-enabled multiple-handset multiple-handset cordless telephone with separate intercoms for each handset;

**Amend paragraph beginning at page 4, line 7, as follows:**

~~FIG. 6c~~ Fig. 6c is a continuation of the flowchart of the algorithm in the ~~Base~~ base station of a ~~active-call intercom-enabled~~ an active-call intercom-enabled multiple-handset multiple-handset cordless telephone with separate intercoms for each handset;

**Amend paragraph beginning at page 4, line 10, as follows:**

~~FIG. 6d~~ Fig. 6d is a flowchart of the algorithm in a handset of a ~~active-call intercom-enabled~~ an active-call intercom-enabled multiple-handset multiple-handset cordless telephone with separate intercoms for each handset; and

**Amend paragraph beginning at page 4, line 13, as follows:**

~~FIG. 6e~~ Fig. 6e is a continuation of the flowchart of the algorithm in the base station of a ~~active call-intercom-enabled~~ an active-call intercom-enabled multiple-handset multiple-handset cordless telephone with separate intercoms for each handset.

**Amend paragraph beginning at page 6, line 5, as follows:**

Referring first to the base station processing illustrated in Fig. 2a, Figs. 2a [[,]] and 2b illustrate processing respectively performed at the base station 1000 and handset 1010 by respective microprocessors 1004 and 1013 to implement the invention. When the base station 1000 receives an intercom signal transmitted from handset 1010 at processing segment 1100, indicating that the handset 1010 user wants to initiate an intercom communication, the microprocessor 1004 checks if the telephone line is active on handset 1010 at processing segment 1102. If the telephone line is active on handset 1010, then the transmitter/receiver circuit 1001 is disconnected from the telephone line at segment 1105, the active line is placed on hold, and the transmitter/receiver circuit 1001 is connected to the speaker/microphone 1005 at segment 1106, initiating the intercom communication. If the telephone line is not active on handset 1010, the microprocessor 1004 checks if the telephone line is active at the base station 1000 at processing segment 1103. If the telephone line is active at the base station 1000, the telephone line is disconnected from the ~~speaker-microphone~~ speaker/microphone 1006 at segment 1107, the active line is placed on hold, and the transmitter/receiver circuit 1001 is connected to the speaker/microphone 1006 at segment 1108, initiating the intercom communication. If the telephone line is not active at the base station 1000, then the transmitter/receiver circuit 1001 is connected to the speaker/microphone 1005 at segment 1104.

**Amend paragraph beginning at page 7, line 8, as follows:**

If the intercom button signal from handset 1010 is not received by the base station 1000, as detected at processing segment 1100, the microprocessor 1004 checks if the base station's intercom button 1003 was depressed at processing segment 1110, indicating that the base station user wants to initiate an intercom communication. If the intercom button 1003 was not depressed, as detected at processing segment 1110, the microprocessor returns to the start of base station processing because nothing has happened.

**Amend paragraph beginning at page 8, line 5, as follows:**

As illustrated in Fig Fig. 2b, after the intercom communication is initiated at segments 1104, 1106, 1108, 1108, 1116, 1117, and 1122, the microprocessor 1004 proceeds to check if the intercom communication should be terminated. The microprocessor 1004 checks if the intercom signal from

handset 1010 was received at the base station 1000 at processing segment 1130, indicating that the handset user wants to terminate the intercom communication, i.e. i.e., pressed the intercom button. If the intercom button signal from handset 1010 was received at the base station 1000, as detected at processing segment 1130, the transmitter/receiver circuit 1001 is disconnected from the speaker/microphone 1006 at segment 1131, terminating the intercom communication.

**Amend paragraph beginning at page 9, line 1, as follows:**

If the base station's intercom button 1003 was not depressed, as detected at processing segment 1138, the microprocessor 1004 checks if the speakerphone button 1006 (i.e. i.e., the base station's activate line button) was depressed at processing segment 1132, indicating that the base station user wants to terminate the intercom communication and activate the telephone line. If the speakerphone button 1006 was depressed, as detected at processing segment 1132, the transmitter/receiver circuit 1001 is disconnected from the speaker/microphone 1005 at segment 1133, terminating the intercom communication, the telephone line is connected to speaker/microphone 1005 at segment 1134, activating the line at the base station, and the end intercom signal is transmitted by the base station 1000 to handset 1010 at segment 1139.

**Amend paragraph beginning at page 9, line 13, as follows:**

If the speakerphone button 1006 is not depressed, as detected at processing segment 1132, the microprocessor 1004 checks if an activate line signal from handset 1010 is received at base station 1000 at processing segment 1135, indicating that the handset 1010 user wants to terminate the intercom communication and activate the line, i.e. i.e., pressed activate line button 1015 on handset 1010. If an activate line signal is received by the base station 1000 from handset 1010, as detected at processing segment 1135, the transmitter/receiver circuit 1001 is disconnected from the speaker/microphone 1005 at segment 1136, terminating the intercom communication. Then, the telephone line is connected to transmitter/receiver circuit 1001 at segment 1137, activating the telephone line on handset 1010.

**Amend paragraph beginning at page 13, line 10, as follows:**

~~FIG. Figs. 3, 4 and 4b show a second embodiment which includes, as shown in Fig. 3, a base station 2000 station 2000, a first handset 2010 a first handset 2010, and a second handset 2020. The base station includes a transmitter/receiver circuit 2001, a line interface 2002, an intercom button 2003, a microprocessor 2004, a speaker/microphone 2005, and a speakerphone button 2006. Handset 2010 includes a transmitter/receiver circuit 2011, a speaker/microphone 2012, a microprocessor 2013, an intercom button 2014, and an activate line button 2015. Handset 2020 includes a transmitter/receiver circuit 2021, a speaker/microphone 2022, a microprocessor 2023, an intercom button 2024, and an activate line button 2025. The base station 2000 may have a speakerphone which is a speaker/microphone 2005 combination or a hardwired handset which also includes a speaker/microphone 2005 combination.~~

**Amend paragraph beginning at page 14, line 13, as follows:**

~~FIG. 4a Fig. 4a illustrates the process flow for the base station 2000 of the second embodiment of the invention. When the base station 2000 does not receive an intercom signal from a handset 2010 or 2020 at processing segment 2100, it checks if the intercom button 2003 was depressed at processing segment 2130. If the intercom button 2003 is not depressed, as detected at processing segment 2130, the microprocessor 2004 returns to processing segment 2100.~~

**Amend paragraph beginning at page 14, line 20, as follows:**

If an intercom button 2003 signal is received from handset 2010 or 2020 at processing segment 2100, indicating that the handset user wants to initiate an intercom communication, the microprocessor 2004 checks if the telephone line is active at processing segment 2101. If the telephone line is inactive, as

detected at processing segment 2101, the base station 2000 transmits an intercom signal to handsets 2010 and 2020 at segment 2102 and connects the transmitter/receiver circuit 2001 to the speaker/microphone 2005 at segment 2103 initiating the intercom communication.

**Amend paragraph beginning at page 17, line 18, as follows:**

If the activate line button signal is not received, as detected at processing segment 2150, the microprocessor 2004 checks if the speakerphone button 2006 was depressed at processing segment 2160, indicating that the base station 2000 user wants to terminate the intercom communication and activate the line at the base station 2000. If the speakerphone button 2006 is depressed, as detected at processing segment 2160, the base station 2000 disconnects the transmitter/receiver circuit 2001 from the speaker/microphone 2005 at segment 2161, terminating the intercom communication, connects the telephone line and speakerphone 2006 at segment 2162, activating the line at the base station, transmits the end intercom signal at segment 2163, and returns to the start of base station processing.

**Amend paragraph beginning at page 19, line 21, as follows:**

If the intercom signal from base station ~~20000~~ 2000 is received from handset 1 2010 at processing segment 2210, requesting an intercom communication, handset 1 2010 sends a signal to the speaker/microphone 2012 to beep at segment 2211 to alert the user that an intercom communication is requested. The microprocessor 2013 then checks if the intercom button 2014 was depressed at processing segment 2212, indicating that the handset 1 user also wants to initiate an intercom communication. If the intercom button was not depressed, as detected at processing segment 2212, the microprocessor 2013 checks if the end intercom signal from base station 2000 was received by handset 1 2010 at processing segment 2220, indicating that the base station 2000 user or the handset 2 2020 user no longer wants to initiate an intercom communication. If the end intercom signal from base station 2000 was received by handset 1 2010, as detected at processing segment 2220, indicating that the request for an intercom communication has been cancelled, handset 1 2010 returns to the start of handset 1 processing. If the end intercom signal from base station 2000 was not received by handset 1 2010, as detected at processing segment 2220, handset 1 2010 returns to segment 2211 to alert the user again that an intercom communication is requested.

**Amend paragraph beginning at page 22, line 10, as follows:**

~~FIG. Figs. 5, 6, 6a, 6b, 6c, 6d and 6e show a third embodiment of the invention which includes, as shown in Fig. 5~~ Fig. 5, a base station ~~3000~~ station 3000, a first handset ~~3010~~ handset 3010, and a second handset 3020. Unlike the cordless telephone system ~~show~~ shown in ~~FIG. 3~~ Fig. 3, the present embodiment has separate intercom buttons for each other unit. This allows ~~it allows~~ an intercom communication that does not include all of the handsets or the base station. In addition, this system allows intercom communications between inactive units while another unit is active. The base station 3000 includes a first transmitter/receiver circuit 3002, a second transmitter/receiver circuit 3001, a line interface 3003, a first intercom button 3004, a second intercom button 3006, a microprocessor 3005, a speaker/microphone 3007, and a speakerphone button 3008. The first handset 3010 includes a transmitter/receiver circuit 3011, a speaker/microphone 3012, a microprocessor 3013, an activate line button 3014, a first intercom button 3016, and a second intercom button, 3015. The second handset 3020 includes a transmitter/receiver circuit 3021, a speaker/microphone 3022, a microprocessor 3023, an activate line button 3024, a first intercom button 3026, and a second intercom button, 3025. The base station 3000 may have a speakerphone which is a speaker/microphone 3005 combination or a hardwired handset which also includes a speaker/microphone 3005 combination.

**Amend paragraph beginning at page 23, line 4, as follows:**

In accordance with the third embodiment of the invention, when a handset 3010 or 3020 intercom button 3004 or 3006 is depressed at the base station 3000 while the telephone line is active on the base

station 3000, the active line is placed on hold and the selected handset alerts the user. If the user of that handset 3010 or 3020 then depresses the base station intercom button 3015 or 3025, the intercom is initiated. When a handset intercom button 3016 or 3026 is depressed from another handset 3010 or 3020 while the telephone line is active on that handset, the active line is placed on hold and the selected handset 3010 or 3020 alerts the user. If the user then depresses handset intercom button 3016 or 3026 for handset 3010 or 3020 requesting the intercom, the intercom is initiated. When the intercom button is depressed from an inactive location requesting an intercom with an active location, the active location is alerted. If the active location then depresses the corresponding intercom button, the active line is placed on hold and the intercom initiated. When the intercom button from one inactive location is to another inactive location is depressed, whether a third location is active or not, the selected location alerts the user that an intercom is requested. If the user at that location depresses the corresponding intercom button, then the intercom is initiated between the two inactive locations without interfering with the active location.

**Amend paragraph beginning at page 23, line 24, as follows:**

~~FIG. 6a, FIG. 6b, and FIG. 6c~~ Figs. 6a, 6b, and 6c illustrate the process flow of the base station 3000 of an active-call intercom-enabled multiple-handset ~~a multiple handset active-call-enabled~~ cordless telephone with separate intercom buttons for each handset.

**Amend paragraph beginning at page 25, line 3, as follows:**

If handset 1 3010 intercom button 3004 is not depressed, as detected at processing segment 3114, the microprocessor 3005 checks if the base intercom signal from handset 1 3010 is received by base station 3000 at processing segment 3117, indicating that the handset 1 3010 user no longer wants to initiate an intercom communication, i.e. i.e., the handset 1 3010 user pressed the base station 3000 intercom button 3015 a second time before the base station 3000 user pressed the handset 1 3010 intercom button 3004 to initiate the intercom communication. If the base intercom signal from handset 1 3010 was not received by base station 3000, as detected at processing segment 3117, the microprocessor 3005 returns to segment 3113. If the base intercom signal from handset 1 3010 was received by base station 3000, as detected at processing segment 3117, the microprocessor 3005 returns to the start of base station processing.

**Amend paragraph beginning at page 25, line 20, as follows:**

After the intercom is initiated between the base station 3000 and handset 1 3010 at segments 3103, 3105, 3112, and 3116, the microprocessor 3005 checks if the speakerphone button 3008 was depressed at processing segment 3120 to determine if the intercom communication should be terminated. If the speakerphone button 3008 was depressed, as detected at processing segment 3120, indicating that the base station 3000 user wants to terminate the intercom communication and activate the line, the microprocessor 3005 disconnects transmitter/receiver circuit 1 3002 from the speaker/microphone 3007 at segment 3121, terminating the intercom communication, connects the telephone line and speaker/microphone 3007 at segment 3122, activating the line, transmits the end of intercom signal to handset 1 3010 at segment 3123, and proceeds to the start of base station processing.

**Amend paragraph beginning at page 27, line 17, as follows:**

If the base station 3000 does not receive a base intercom signal from either handset 1 3010 or handset 2 3020, as detected at processing segment 3100, the microprocessor 3007 checks if handset 2 3020 intercom signal from handset 1 3010 is received at processing segment 3200. If handset 2 3020 intercom signal from handset 1 3010 is received, as detected at processing segment 3200, the microprocessor 3005 checks if the telephone line is active on handset 1 3010 at processing segment 3201 as shown in ~~FIG. Fig. 6b~~. If the telephone line is active on handset 1 3010, the microprocessor 3005 sends handset 1 3010 intercom signal to handset 2 3020 at segment 3202, disconnects the telephone line from transmitter/receiver circuit 1 3002 at segment 3203, the active line is placed on hold, and connects

transmitter/receiver circuit 1 3002 to transmitter/receiver circuit 2 3001 at segment 3204, initiating the intercom communication between handset 1 3010 and handset 2 3020.

**Amend paragraph beginning at page 29, line 23, as follows:**

Once the intercom communication is initiated at segments 3204, 3215, and 3225, the microprocessor 3005 determines if the intercom communication should be terminated. The microprocessor checks if the handset 1 3010 intercom signal from handset 2 3020 was received by base station 3000 at processing segment 3230, indicating that the handset 1 3010 user wants to terminate the intercom communication. If the handset 1 3010 intercom signal from handset 2 3020 was received by base station 3000, as detected at processing segment 3230, the microprocessor 3005 sends the handset 2 3020 intercom signal to handset 1 3010, disconnects transmitter/receiver circuit 1 3002 from transmitter/receiver circuit 2 3001 at segment 3232, terminating the intercom communication, and returns to the start of base station processing.

**Amend paragraph beginning at page 35, line 3, as follows:**

~~FIG. 6d and FIG. 6e~~ Figs. 6d and 6e illustrate the process flow of a handset ~~3010-3020~~ 3010, 3020 for ~~a multiple handset active call-enabled~~ an active-call intercom-enabled multiple-handset-cordless telephone with separate intercom buttons for each handset.

**Amend paragraph beginning at page 36, line 18, as follows:**

After the intercom communication is initiated between handset 1 3010 and handset 2 3020 at segments 3403, 3416, 3402 and 3415, the microprocessor 3013 determines if the intercom communication should be terminated. The microprocessor 3013 checks if the handset 2 3020 intercom button 3016 was depressed at processing segment 3430, indicating that the handset 1 3010 user wants to terminate the intercom communication. If the handset 2 3020 intercom button 3016 was depressed, as detected ~~[[a]]~~ at processing segment 3430, the microprocessor 3013 transmits the handset 2 intercom signal to the base station at segment 3431, disconnects the transmitter/receiver circuit 3011 from the speaker/microphone 3012 at segment 3432, terminating the intercom communication, and returns to the start of handset 1 processing.

**Amend paragraph beginning at page 39, line 13, as follows:**

After the intercom communication is initiated at segments 3423, 3505, 3422 and 3504, the microprocessor 3013 determines if the intercom communication between the base station 3000 and handset 1 3010 should be terminated. The microprocessor 3013 checks if the base station 3000 intercom button 3015 was depressed at processing segment 3510, indicating that the handset 1 3010 user wants to terminate the intercom communication. If the base station 3000 intercom button 3015 was depressed, as detected at processing segment 3510, the microprocessor 3013 transmits the base station 3000 intercom signal to the base station 3000 at segment 3511, disconnects the transmitter/receiver circuit 3011 from the speaker/microphone 3012 at segment 3512, terminating the intercom communication and returns to the start of handset 1 processing.

**Amend paragraph beginning at page 40, line 1, as follows:**

If the base station 3000 intercom button 3015 was not depressed, as detected ~~as~~ at processing segment 3510, the microprocessor 3013 checks if the base station 3000 intercom signal from base station 3000 was received by handset 3010 at processing segment 3513. If the base station 3000 intercom signal from base station 3000 was not received by handset 3010, as detected at processing segment 3513, the microprocessor 3013 returns to processing segment 3510 to continue the loop until the intercom communication between the base station 3000 and handset 1 3010 should be terminated.

**Amend paragraph beginning at page 40, line 9, as follows:**

If the base station 3000 intercom communication was received, as detected at processing segment 3513, the microprocessor 3013 disconnects transmitter/receiver circuit 3011 from the speaker/microphone 3012 at segment 3514, terminating the intercom communication, and returns to the start of handset 1 processing.

**Amend paragraph beginning at page 40, line 18, as follows:**

While the above embodiments of the present invention ~~is~~ are described as using a microprocessor as a control circuit for the base station and the handsets, the functions of each can be achieved using other control circuits which may be implemented as an ASIC or other digital or analog control circuit.